

AMENDMENT

Amendments to the Claims: Please replace all prior versions and listings of claims with the following listing of claims.

LISTING OF CLAIMS:

1. (Currently Amended) A method ~~[[of]]~~ for providing service level management ~~for a business process of an entity, the business process supported by a network, the method comprising steps of:~~

providing identifying a plurality of services that the over a network provides for the entity in performance of the business process, wherein the network includes business process being supported by the plurality of services, each of the plurality of services being supported by a plurality of network components that support the plurality of services;

selecting identifying, for at least one of the plurality of services provided over the network, wherein two or more of the plurality of the network components in the network support the selected service, and wherein the selected service has a service parameter that measures provides a measure of a service level [[of]] for the at least one of the plurality of services selected service;

selecting identifying a component parameter that measures a performance of one of the two or more plurality of network components that support the selected service, wherein the selected network component has a component parameter that measures a performance for the selected network component;

identifying a function that defines a relationship between the component parameter for the selected network component and the service parameter for the selected service, wherein the identified function infers a value for the service parameter from a value for the component parameter;

monitoring [[a]] the value [[of]] for the component parameter via at least one monitoring agent coupled to a management protocol understood by an electronic device

~~associated with the network, wherein the monitored value for the component parameter measures the performance for the selected network component; and~~

~~determining taking an action in the electronic device to determine the service level~~
[[of]] ~~for the selected service at least one of the plurality of services from the monitored value~~
[[of]] ~~for the component parameter, wherein determining the to provide service level management of for the business process selected service includes:~~

~~providing the monitored value for the component parameter to the function that defines the relationship between the component parameter for the selected network component and the service parameter for the selected service; and~~

~~infer the value for the service parameter from the monitored value for the component parameter via the function, wherein the inferred value for the service parameter measures the service level for the selected service.~~

2. (Cancelled)

3. (Currently Amended) The method of claim 1, further comprising:

~~determining that the service level for the selected service fails to satisfy a step of, service level agreement in response to the inferred value for the service parameter not meeting or exceeding a threshold value identified in the service level agreement; and~~

~~controlling the one of the plurality of selected network component with one or more instructions in response to determining that the service level for the selected service fails to satisfy the service level agreement, wherein the one or more instruction cause the value for the service parameter components to meet or exceed the threshold value identified in establish the service level agreement.~~

4. (Currently Amended) The method of claim [[1]] 3, wherein ~~the at least one monitoring agent is configured software agents are utilized to issue monitor the one or more instructions that control~~ [[of]] ~~the selected plurality of network components component.~~

5. (Currently Amended) The method of claim 4, wherein the one or more instructions ~~software agents monitor and~~ control the monitored value ~~[[of]]~~ for the component parameter.

6-9. (Cancelled)

10. (Currently Amended) The method of claim 1, further comprising ~~a step of~~, comparing the inferred value for the service parameter to a threshold value identified in a ~~the~~ service level agreement.

11. (Currently Amended) The method of claim ~~[[1]]~~ 10, further comprising:
determining that the service level for the selected service satisfies the ~~a step of,~~
~~incorporating in a service level agreement in response to the inferred value for the service~~
parameter meeting or exceeding the threshold value identified in the service level agreement;
and

determining that the service level for the selected service fails to satisfy the service
level agreement in response to the inferred value for the service parameter not meeting or
exceeding the threshold value identified in the service level agreement.

12. (Currently Amended) The method of claim 11, further comprising ~~a step of reporting~~
generating a report indicating whether the service level for the selected service satisfied ~~[[of]]~~
the service level agreement ~~is satisfied for a designate~~ predetermined time period.

13-29. (Cancelled)

30. (Currently Amended) The method of claim ~~[[1]]~~ 12, wherein the ~~step of taking an~~
~~action includes the step of generating a report indicating~~ includes one or more of operational
~~characteristics for the inferred value for at least one of the~~ service parameter or the service
level plurality of services for the ~~[[a]]~~ selected service for the predetermined time period.

31. **(Currently Amended)** The method of claim [[1]] 3, further comprising controlling wherein the two or more network components that support step of taking an action includes the selected service with the one or more instructions in response to determining that the service level for the selected service fails to satisfy the service level agreement, wherein step of adjusting an operational characteristic of the network based on the one or more instructions cause the value for the determined service parameter to meet or exceed level of the threshold value identified in at least one of the plurality of services service level agreement.

32-33. **(Cancelled)**

34. **(New)** The method of claim 1, wherein selecting the one of the plurality of network components includes:

identifying two or more component parameters for the two or more network components that support the selected service, wherein each of the two or more component parameters measure the respective performance for one of the two or more network components that support the selected service;

producing a decision tree that represents a respective influence that each of the two or more component parameters have on the value for the service parameter; and

analyzing the respective influences for the two or more component parameters in the decision tree to identify one of the two or more component parameters having a greatest influence on the value for the service parameter, wherein the identified component parameter measures the performance for the selected network component.

35. **(New)** The method of claim 34, wherein the decision tree includes two or more numeric percentages that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

36. (New) The method of claim 34, wherein the decision tree includes two or more binary values that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

37. (New) The method of claim 34, wherein the decision tree includes a root node that represents the service parameter, two or more leaf nodes that respectively represent the two or more component parameters, and a plurality of dependencies between the root node and the leaf nodes that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

38. (New) The method of claim 1, wherein the identified function includes one or more arguments that define scheduled unavailability for the selected network component.

39. (New) The method of claim 1, wherein the identified function includes a fuzzy logic algorithm configured to translate the monitored value for the component parameter into a fuzzy concept, determine a numeric grade of membership that the monitored value has in the fuzzy concept, and infer the value for the service parameter from the numeric grade of membership that the monitored value has in the fuzzy concept.

40. (New) A system for providing service level management, comprising:

- a network having a plurality of network components that support a plurality of services provided over the network;

- one or more electronic devices coupled to the network, wherein the one or more electronic devices are configured to:

- select at least one of the plurality of services provided over the network, wherein two or more of the plurality of network components in the network support the selected service, and wherein the selected service has a service parameter that measures a service level for the selected service;

select one of the two or more network components that support the selected service, wherein the selected network component has a component parameter that measures a performance for the selected network component; and

identify a function that defines a relationship between the component parameter for the selected network component and the service parameter for the selected service, wherein the identified function infers a value for the service parameter from a value for the component parameter;

at least one monitoring agent coupled to the network, wherein the at least one monitoring agent is configured to monitor the value for the component parameter, and wherein the monitored value for the component parameter measures the performance for the selected network component; and

a service analysis system coupled to the network, wherein the service analysis system is configured to:

provide the monitored value for the component parameter to the function that defines the relationship between the component parameter for the selected network component and the service parameter for the selected service; and

infer the value for the service parameter from the monitored value for the component parameter via the function, wherein the inferred value for the service parameter measures the service level for the selected service.

41. **(New)** The system of claim 40, wherein the service analysis system is further configured to determine that the service level for the selected service fails to satisfy a service level agreement in response to the inferred value for the service parameter not meeting or exceeding a threshold value identified in the service level agreement, and

wherein the at least one monitoring agent is further configured to control the selected network component with one or more instructions in response to determining that the service level for the selected service fails to satisfy the service level agreement, wherein the one or more instructions cause the value for the service parameter to meet or exceed the threshold value identified in the service level agreement.

42. (New) The system of claim 41, wherein the at least one monitoring agent is further configured to issue the one or more instructions that control the selected network component.
43. (New) The system of claim 42, wherein the one or more instructions control the monitored value for the component parameter.
44. (New) The system of claim 41, wherein the at least one monitoring agent is further configured to control the two or more network components that support the selected service with the one or more instructions in response to determining that the service level for the selected service fails to satisfy the service level agreement, wherein the one or more instructions cause the value for the service parameter to meet or exceed the threshold value identified in the service level agreement.
45. (New) The system of claim 40, wherein the service analysis system is further configured to compare the inferred value for the service parameter to a threshold value identified in a service level agreement.
46. (New) The system of claim 45, wherein the service analysis system is further configured to:
- determine that the service level for the selected service satisfies the service level agreement in response to the inferred value for the service parameter meeting or exceeding the threshold value identified in the service level agreement; and
 - determine that the service level for the selected service fails to satisfy the service level agreement in response to the inferred value for the service parameter not meeting or exceeding the threshold value identified in the service level agreement.

47. (New) The system of claim 46, wherein the service analysis system is further configured to generate a report indicating whether the service level for the selected service satisfied the service level agreement for a predetermined time period.

48. (New) The system of claim 47, wherein the report includes one or more of the inferred value for the service parameter or the service level for the selected service for the predetermined time period.

49. (New) The system of claim 40, wherein the service analysis system is further configured to:

identify two or more component parameters for the two or more network components that support the selected service, wherein each of the two or more component parameters measure the respective performance for one of the two or more network components that support the selected service;

produce a decision tree that represents a respective influence that each of the two or more component parameters have on the value for the service parameter; and

analyze the respective influences for the two or more component parameters in the decision tree to identify one of the two or more component parameters having a greatest influence on the value for the service parameter, wherein the identified component parameter measures the performance for the selected network component.

50. (New) The system of claim 49, wherein the decision tree includes two or more numeric percentages that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

51. (New) The system of claim 49, wherein the decision tree includes two or more binary values that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

52. (New) The system of claim 49, wherein the decision tree includes a root node that represents the service parameter, two or more leaf nodes that respectively represent the two or more component parameters, and a plurality of dependencies between the root node and the leaf nodes that represent the respective influences that each of the two or more component parameters have on the value for the service parameter.

53. (New) The system of claim 40, wherein the identified function includes one or more arguments that define scheduled unavailability for the selected network component.

54. (New) The system of claim 40, wherein the identified function includes a fuzzy logic algorithm configured to translate the monitored value for the component parameter into a fuzzy concept, determine a numeric grade of membership that the monitored value has in the fuzzy concept, and infer the value for the service parameter from the numeric grade of membership that the monitored value has in the fuzzy concept.